

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/009100

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B05C17/005 A61C9/00 A61B17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B05C A61C A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 743 436 A (CARUFEL ROGER J ET AL) 28 April 1998 (1998-04-28) column 5, lines 43-51 figure 4	1,3,4, 12-14
Y A		2,6 5,8,15, 16
X	EP 0 444 247 A (W A KELLER PROZESSTECHNIK ; CROWN DELTA CORP (US)) 4 September 1991 (1991-09-04) column 5, line 37 - line 47 figure 7 ----- -/--	1,3,13



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

12 April 2005

Date of mailing of the international search report

- 3. 06. 2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Roldán, J

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/009100

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 086 248 A (HILTI AG) 12 May 1982 (1982-05-12)	11, 18-22, 45,46,50
A	the whole document	23,48
X	----- EP 0 815 802 A (MINNESOTA MINING AND MANUFACTURING COMPANY) 7 January 1998 (1998-01-07)	18,22, 23, 45-47,50
A	columns 7,8	24,48
X	----- US 4 676 657 A (BOTRIE ET AL) 30 June 1987 (1987-06-30)	26-31, 34,35, 38-44
A	the whole document	32,36
X	----- US 3 738 535 A (NICHOLLS A,US) 12 June 1973 (1973-06-12)	45-48
	the whole document	
X	----- US 3 587 982 A (HUGH W. CAMPBELL) 28 June 1971 (1971-06-28)	45-48
	the whole document	
Y	----- WO 03/041605 A (PAUSER HELMUT ; PEUKER MARC (DE); HOHMANN ARNO (DE); 3M ESPE AG (DE)) 22 May 2003 (2003-05-22)	2,6
	pages 8-9 page 17, lines 9-27 figures 1-3	
A	----- US 4 690 306 A (STAEHLI ET AL) 1 September 1987 (1987-09-01)	18
	the whole document	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/009100

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5743436	A	28-04-1998	AU 5873896 A CA 2238766 A1 DE 69627190 D1 DE 69627190 T2 EP 0871408 A1 JP 2000501986 T WO 9721394 A1	03-07-1997 19-06-1997 08-05-2003 13-11-2003 21-10-1998 22-02-2000 19-06-1997
EP 0444247	A	04-09-1991	US 4969747 A EP 0444247 A1	13-11-1990 04-09-1991
GB 2086248	A	12-05-1982	DE 3040923 A1 CH 652684 A5 FR 2493276 A1 SE 8105862 A	27-05-1982 29-11-1985 07-05-1982 01-05-1982
EP 0815802	A	07-01-1998	EP 0815802 A2 EP 0748189 A1 WO 9522941 A1	07-01-1998 18-12-1996 31-08-1995
US 4676657	A	30-06-1987	NONE	
US 3738535	A	12-06-1973	NONE	
US 3587982	A	28-06-1971	BE 744393 A1 CH 504233 A DE 2000981 A1 FR 2028376 A5 GB 1251012 A	15-06-1970 15-03-1971 12-11-1970 09-10-1970 27-10-1971
WO 03041605	A	22-05-2003	DE 10156075 A1 CA 2460871 A1 WO 03041605 A1 EP 1443868 A1 US 2004262332 A1	05-06-2003 22-05-2003 22-05-2003 11-08-2004 30-12-2004
US 4690306	A	01-09-1987	AT 46837 T DE 3665999 D1 EP 0213073 A1 JP 62096821 A	15-10-1989 09-11-1989 04-03-1987 06-05-1987

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/009100

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-10,12-17

Syringe comprising a mixing tip and a cartridge wherein said mixing tip is integrally formed with said cartridge.

2. claims: 11,18-25,45-50

Syringe comprising a mixing tip and a cartridge wherein said mixing tip is connectable to said cartridge.

3. claims: 26-44

Syringe comprising a static mixer and a cartridge, wherein said static mixer is integrally connected to said cartridge.
